

## ROXANA UGAZ

Principal Engineer

Curriculum Vitae

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### QUALIFICATIONS

BSc (ENG) CIVIL (2001)

MSc (ENG) Geotechnical (2006)

MSc (Mineral and Energy Economics) (2012)

### MEMBERSHIPS

Member, Institute of Engineers, Peru

Member Engineers Australia

### REGISTRATIONS

Registered Professional Engineer, Peru

Registered Engineer for Mine Closure Engineering, Peru

### BACKGROUND

Roxana has acquired several specialisations over 9 years of consulting in dam, tailings dam, waste and environmental engineering. These specialisations include but are not limited to: Tailings geotechnics, Tailings dam siting and design, Tailings dam remediation, Slope stability analysis, Seepage analysis, Seismic hazard and Seismic risk assessment, Geotechnical Modelling with Fine Element software, Geophysics analysis and interpretation, Financial and economic assessments for mining projects, Studies on the influence of investment and financing decisions on mining projects at the pre-feasibility stage, Construction of realistic Discounted Cash flow (DCF) models for a mining project, and Assessment of the project and financial risks on investment decisions under uncertainty.

### SPECIAL EXPERTISE

- Project Management and coordination of mine waste management studies
- Geotechnical site investigation
- Tailings storage and closure planning
- Seepage, consolidation and slope stability analyses for Waste Rock Dumps, Water storage dams and Tailings Storage Facilities
- Geotechnical modelling for tailings dams and foundations.
- Design, investigation, and construction on mining sites
- Engineering design of long term closure measures to address seismic stability issues
- Road Design
- Geophysics interpretation and analysis.
- Modelling in Civil 3D and Design of roads in Advance Road Design.
- Modelling in Rift software.

## **SELECTED PROJECT EXPERIENCE**

### **Geotechnical Studies**

- Ketzka Mine, Canada
- Cadia Copper Mine, New South Wale Australia
- Tropicana Gold Mine, Wester Australia
- Argyle Diamond Mine Waste Rock Dumps, Western Australia
- Lumwana Copper Mine, Zambia
- Ban Houayxai Gold – Silver Mine, Laos
- Rosebery Polymetallic Mine, Tasmania
- Akyem Gold Mine, Ghana
- Udokan Copper Mine, Russia
- Ahafo Gold Mine, Ghana
- Chatree Gold Mine, Thailand
- SADACAJ to Peru Government , Peru
- Yanacocha Gold Mine, Peru
- Luz del Sur, Peru
- Cerro Verde Copper Mine, Peru
- Globeleq (High voltage substation), Peru
- Enersur, Peru
- Las Vegas - Camargo Correa, Peru

### **Tailings Storage Facilities**

- Ban Houayxai Gold – Silver Mine, Laos
- Akyem Gold Mine, Ghana
- Udokan Copper Mine, Russia
- Tropicana Gold Mine, Wester Australia
- Atacocha Gold Mine, Peru
- Yanacocha Gold Mine, Peru
- Pucarrajo Mine, Peru
- Colquirrumi Mine, Peru
- Atacocha Mine, Peru
- El Pilar Mine, Peru
- San Valentin Mine, Peru
- San Luis Mine, Peru
- La Estrella Mine, Peru

### **Road Design with Geotechnical buildings.**

- Nammuldi Iron Ore Mine, Wester Australia

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### **Curriculum Vitae**

- Karara Mine, Western Australia
- Tropicana Gold Mine, Western Australia
- Interoceanic Highway Road (Sector 3 and Sector 4), Peru
- Marginal Oasis, Peru
- Santa Rosa – San Pablo, Peru
- Atumpampa – Moyopampa, Peru
- Monzon – Tingo Maria, Peru
- Pativilca – Puente Santa, Peru
- Chalhuanca – Abancay, Peru
- San Pablo Cajamarca, Peru

#### **Water Dams**

- Palo Redondo (Huachipa – Cascajal) Water Dam, Odebrecht S.A, Peru
- Tablachaca Water Dam, Peru
- Paucarcocha Water Dam (North and South Dams), Peru

#### **Mine Closure Studies**

- Recuperada Lead, Zinc Mine, Peru
- Colquirrumi Mine, Peru
- Atacocha Mine, Peru
- El Pilar Mine, Peru
- San Valentin Mine, Peru
- San Luis Mine, Peru
- La Estrella Mine, Peru